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09/761,143	01/16/2001	Muraleedharan G. Nair	MSU 4.1-541	4327

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EXAMINER

PATTEN, PATRICIA A

ART UNIT	PAPER NUMBER
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1654

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23

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 23

Application Number: 09/761,143  
Filing Date: January 16, 2001  
Appellant(s): NAIR ET AL.

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Ian McLeod  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/14/03.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is substantially correct. However, the rejections over claims 1, 3-6, 27-30 and 34 under 35 USC 103 (a) in view of Lietti et al. and Wurm et al. as well as the rejections over claims 1, 3-6, 15-18, 27-30 and 34 under 35 USC 103 (a) in view of Lietti et al. and Wurm et al. and Heckert et al. are hereby withdrawn.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The Appellants' statement of the issues in the brief is substantially correct. However, claims 1, 3-6, 27-30 and 34 under 35 USC 103 (a) in view of Lietti et al. and Wurm et al., as well as the rejection over claims 1, 3-6, 15-18, 27-30 and 34 under 35

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USC 103 (a) in view of Lietti et al. and Wurm et al. and Heckert et al. are hereby withdrawn.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims 1, 3 and 4; 5, 6, 15, 17 and 18; 27 and 30; 28 and 29 stand or fall together and that claims 16 and 34 each respectively stands or falls on their own and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

No prior art is relied upon by the examiner in the rejection of the claims under appeal.

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-6, 15-18, 27-30 and 34 are rejected under 35 U.S.C. 112 First paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the

inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims recite new matter which was not disclosed in the Instant Specification as originally filed. The claims are drawn to a method for inhibiting cyclooxygenase or prostaglandin H synthase by providing a mixture of cyanidin and an anthocyanin, or a method for inhibiting inflammation in a mammal comprising administering a mixture of cyanidin and an anthocyanin or a method for inhibiting inflammation via administration of a mixture of cyanidin and a bioflavonoid. The specific mixture; cyanidin with an anthocyanin, is not specifically taught or implied in the original disclosure and therefore constitutes new matter.

**(11) Response to Argument**

Appellants argue that although it is helpful, it is not necessary to provide an example of each and every combination [in the specification] (p.10 – Appeal Brief). As evidence, Appellants cite *In re Smith*, wherein appellants taught in the specification that they had “produced crystalline polymers of 4-methyl-1-pentene which have melting points in the range of 390 to 425 F”. However, Appellants particularly claimed 4-methyl-1-pentene which was deemed New Matter by the Examiner. The CCPA ruled that “polymers of 4-methyl-1-pentene” was the “necessary and only reasonable construction”.

In the circumstance of *In re Smith*, embodiments which appear to be New Matter were deemed to be intrinsic to an application as demonstrated above; in the Instant case however, it is not found where the Disclosure as originally filed explicitly or implicitly taught a combination of cyanidin along with an anthocyanin to inhibit prostaglandin H synthase or cyclooxygenase. Example 4 in the Instant specification provides for assays which show where a mixture of anthocyanins and cyanidin *respectively* inhibited PGHS-1; however, there is no teaching of a mixture of one particular anthocyanin and cyanidin to inhibit PGHS-1.

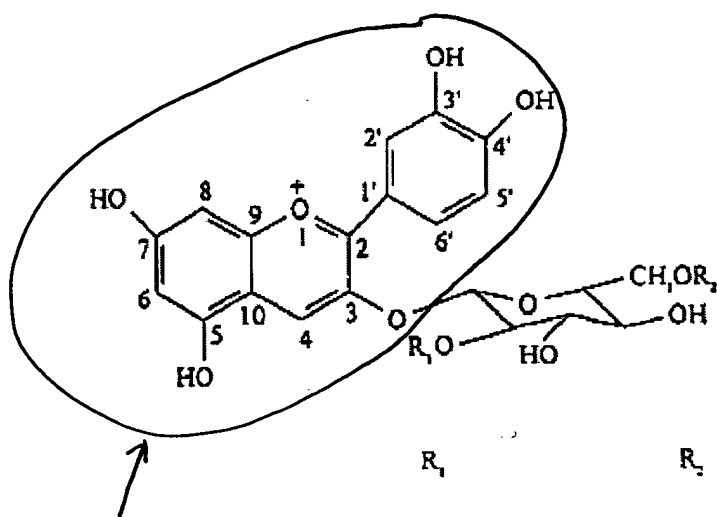
Thus, the invention *as claimed* was not the 'necessary and only reasonable construction' as indicated in *In re Smith*. On the contrary, it does not appear that this particular invention was disclosed or contemplated within the original specification, and is actually broader in scope as it may be drawn to anthocyanins which are not particularly extracted from cherries.

Appellants cite the Instant specification: [the] "mixture of anthocyanins, bioflavonoids and phenolics can be tableted and used as a natural nutraceutical, phytoceutical, or dietary supplement." (Specification, page 8, lines 27-23, Appeal Brief p.12). Appellants state that this 'mixture' was also taught in original claim 15 and contend that the term 'mixture' is not limited and could comprise two or more different types of anthocyanins or bioflavonoids (p. 12 – Appeal Brief). Appellants further state

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that the Specification teaches that anthocyanin 'includes' cyanidin within the broad category of anthocyanin'. The structure of Anthocyanin and cyanidin are shown below.

The Instant specification defines the term 'anthocyanin' to include 'cyanidin' (p.5, line 37- p. 6, line 3). It is noted that although Appellants have redefined this term in the Specification, cyanidin is actually an anthocyanidin. Below is the structure of an anthocyanin which displays cyanidin with an o-glycoside bonded to the third carbon on the aglycon ring structure. Thus, cyanidin is the core aglycon structure of all anthocyanins and may be separated from the o-glycoside by hydrolysis with a strong acid such as HCL as taught in the Specification (p. 17-19). It is further noted that cyanidin is found in nature in the glycosidic anthocyanin form as displayed below.



cyanidin core structure

With regard to the language in the Specification which recites "...mixture of anthocyanins, bioflavonoids and phenolics..." (p.8, lines 27-30): This 'mixture' is referring to the isolated anthocyanins bioflavonoids and phenolics isolated from a cherry: The entire sentence reads: "The *isolated* mixture of anthocyanins bioflavonoids and phenolics can be tableted and used as a natural nutraceutical, phytoceutical or a dietary supplement" (emphasis added). Therefore, this 'mixture' is not referring to cyanidin, because cyanidin is not found as a naturally occurring phytochemical without the o-glycoside attachment (as it was pointed out *supra*, cyanidin must be hydrolyzed from the naturally occurring anthocyanin which is the o-glycoside of cyanidin).

While original claim 15 states 'anthocyanin including cyanidin' this statement is not deemed to mean 'anthocyanin *and* cyanidin' but deemed to mean anthocyanin as a group, wherein cyanidin is part of the group named 'anthocyanins' (as defined by Appellants).

Although Appellants have defined 'anthocyanins' as including 'cyanidin', the claims state 'a mixture of cyanidin and an anthocyanidin'. While it is accepted, based on the Application, that Appellants contemplated the use of the anthocyanins separately, or cyanidin separately, or a mixture of anthocyanins, bioflavonoids and phenolics isolated from a cherry, the Specification does not teach any embodiment which includes a mixture of anthocyanin and cyanidin. Nor does the Specification appear to contemplate a method for inhibiting cyclooxygenase or prostaglandin H



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synthase with a mixture of cyanidin and anthocyanins although the Specification did teach that both of these compounds inhibited cyclooxygenase and prostaglandin H synthase enzymes separately.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

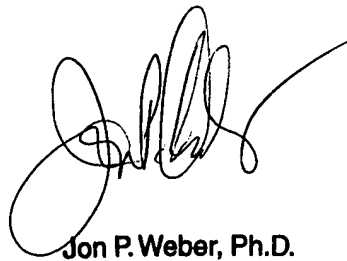
Patricia A Patten  
Examiner  
Art Unit 1654

PAP  
October 1, 2003

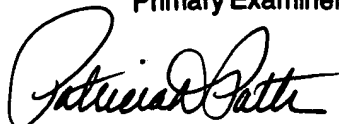
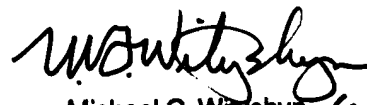
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